15. The composition of Claim 12 and further comprising hyaluronic acid.

16. The composition of Claim 12 wherein said mesenchymal stem cells are in said alginate gel layer at a density from 3.2 x 10^6 cells/ml to 25 x 10^6 cells/ml.

17. The composition of Claim 16 wherein said mesenchymal stem cells are in said alginate gel layer at a density from 6.25 x 10^6 cells/ml to 25 x 10^6 cells/ml.

18. A method for regenerating or repairing cartilage in an individual in need thereof comprising administering to said individual human mesenchymal stem cells in an alginate gel layer which supports the differentiation and maturation of human mesenchymal stem cells into a chondrogenic lineage to an extent sufficient to accelerate cartilage formation therefrom, and wherein the mesenchymal stem cells are contacted with a chondroinductive agent.

19. The method of Claim 18 wherein said chondroinductive agent is selected from the group consisting of a glucocorticoid and a member of the transforming growth factor superfamily.

20. The method of Claim 19 wherein said chondroinductive agent is TGF-β3.

21. The method of Claim 18 wherein said mesenchymal stem cells are in said alginate gel layer at a density from 3.2 x 10^6 cells/ml to 25 x 10^6 cells/ml.

22. The method of Claim 21 wherein said mesenchymal stem cells are in said alginate gel layer at a density from 6.25 x 10^6 cells/ml to 25 x 10^6 cells/ml.

23. A method of forming cartilage *in vitro*, comprising:

admixing human mesenchymal stem cells with a solution comprising an alginate:

polymerizing said alginate to form a composition comprising said human mesenchymal stem cells in an alginate gel layer; and

contacting said human mesenchymal stem cells in an alginate gel layer with a chondroinductive agent.

24. The method of Claim 23 wherein said alginate is sodium alginate.

25. The method of Claim 23 wherein said solution further comprises hyaluronic acid.

26. The method of Claim 23 wherein said chondroinductive agent is selected from the group consisting of a glucocorticoid and a member of the transforming growth factor superfamily.

27. The method of Claim 26 wherein said chondroinductive agent is TGF-β3.

28. The method of Claim 23 wherein said mesenchymal stem cells are in said alginate gel layer at a density from 3.2×10^6 cells/ml to 25×10^6 cells/ml.

29. The method of Claim 28 wherein said mesenchymal stem cells are in said alginate gel layer at a density of from 6.25×10^6 cells/ml to 25×10^6 cells/ml.

REMARKS

The claims have been amended in order to place the application in better form. Claims 1-11 have been cancelled without prejudice and Claims 12-29 have been added. The fact that Claims 1-11 have been cancelled without prejudice is not to be construed as an admission by Applicants or Applicants' attorneys that such claims are unpatentable, and Applicants reserve the right to prosecute such claims in a continuing application.

Claims 1, 6, 7, and 9-11 stood rejected under 35 U.S.C. 102(b) as being anticipated by Grande, et al. This rejection is respectfully traversed.

The present invention is directed to a composition for producing cartilage. As defined broadly in Claim 12, the composition comprises human mesenchymal stem cells in an alginate